

ORIGINAL

UNS Electric, Inc.

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April 12, 2016

Docket Control
Utilities Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, AZ 85007

Re: Notice of Filing – UNS Electric, Inc.'s Report on Distribution Indices
Docket No. E-04204A-09-0206, Decision No. 71914

Pursuant to Decision No. 71914 (September 30, 2010), UNS Electric, Inc. ("UNS Electric") is required to file an annual report of the distribution indices including a listing of the worst performing circuits and what step are being taken to mitigate these circuits' poor performance." Please find enclosed UNS Electric's report on the worst performing circuits and mitigation efforts for 2015.

If you have any questions regarding the report, please contact me at (520) 884-3680.

Sincerely,

Melissa Morales
Regulatory Services

Arizona Corporation Commission

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APR 14 2016

cc: Compliance Section, ACC

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UNISOURCE ELECTRIC WORST PERFORMING DISTRIBUTION CIRCUITS CALENDAR YEAR 2015

Kingman District

SUBSTATION	CIRCUIT #	# FORCED OUTAGES 2015	2015 PRIMARY OUTAGE CAUSES	COMPOSITE CIRCUIT IMPORTANCE RATING
Jagerson	5063	15	Animal (2), Equipment Failure (2), External Caused (1), Momentary (5), Weather (5)	87.5
Casson	5008	25	Animal (8), Equipment Failure (6), External Caused (2), Momentary (2), Unknown (3), Weather (4)	63
Casson	5007	12	Animal (3), Equipment Failure (1), External Caused (1), Momentary (3), Planned Outage (1), Unknown (1), Weather (2)	40

Mitigation for Jagerson-5063: Circuit has a 61% circuit loading with 2269 customers. The Customer Outage Minutes Ratio is high at 23.0. The normal open between this circuit and JA-5066 can be moved to reduce the number of customers on this circuit.

Mitigation for Casson-5008: Circuit has a 77% circuit loading with 2835 customers. The Customer Outage Minutes Ratio is 1.323.

Mitigation for Casson-5007: Circuit has a 70% circuit loading with 1885 customers. The Customer Outage Minutes Ratio is 2.881.

Mitigations for all circuits:

1. All circuits are regularly patrolled in the Kingman District.
2. Immediate maintenance or repair is completed for Equipment Failure and/or External Caused damages.
3. Bird guard and bird wire are presently specified on all new designs, and trouble crews install bird guard and bird wire at locations where fuses have blown.

UNISOURCE ELECTRIC WORST PERFORMING DISTRIBUTION CIRCUITS CALENDAR YEAR 2015

Lake Havasu District

SUBSTATION	CIRCUIT #	# FORCED OUTAGES 2015	2015 PRIMARY OUTAGE CAUSES	COMPOSITE CIRCUIT IMPORTANCE RATING
Kiowa	6016	10	Animal (3), Equipment Failure (2), Momentary (1), Unknown (4)	43.75
Clearwater	6026	18	Animal (2), Equipment Failure (2), External Cause (1), Momentary (6), UES Caused (1), Unknown (2), Weather (4)	30
Clearwater	6029	26	Animal (8), Equipment Failure (2), Loss of Source (1), Momentary (2), UES Caused (2), Unknown (5), Weather (6)	30

Mitigation for Kiowa-6016: Circuit has a 90% circuit loading with 3005 customers. The Customer Outage Minutes Ratio is 1.652. The circuit has far reaching feeds up into the foothills and therefore takes time to patrol which increases outage time. A study to install reclosers will be done to see if the customer outage minutes could be reduced.

Mitigation for Clearwater-6026: Circuit has a 66% circuit loading with 2113 customers. The Customer Outage Minutes Ratio is 1.228. The circuit has far reaching feeds up into the foothills and therefore takes time to patrol which increases outage time. A study to install reclosers will be done to see if the customer outage minutes could be reduced.

Mitigation for Clearwater-6029: Circuit has a 66% circuit loading with 1992 customers. The Customer Outage Minutes Ratio is 9.036. Animals and weather were the largest factors in the performance of this circuit.

Mitigations:

1. All circuits are regularly patrolled in the Lake Havasu District.
2. Immediate maintenance or repair is completed for Equipment Failure and/or External Caused damages.
3. Bird guard and bird wire are presently specified on all new designs, and trouble crews install bird guard and bird wire at locations where fuses have blown.

UNISOURCE ELECTRIC WORST PERFORMING DISTRIBUTION CIRCUITS CALENDAR YEAR 2015

Santa Cruz District

SUBSTATION	CIRCUIT #	# FORCED OUTAGES 2015	2015 PRIMARY OUTAGE CAUSES	COMPOSITE CIRCUIT IMPORTANCE RATING
Valencia	6243	80	Animal (3), Equipment Failure (10), External Caused (2), Momentary (9), Unknown (17), Weather (39)	86.25
Sonoita	6204	58	Animal (3), Equipment Failure (6), External Caused (3), Momentary (5), Unknown (13), Weather (28)	60
Sonoita	6206	95	Animal (4), Equipment Failure (7), External Caused (1), Momentary (13), Unknown (29), Weather (41)	55

Mitigation for Valencia-6243: Circuit has a 68% circuit loading with 2718 customers. The Customer Outage Minutes Ratio is 7.4721.

Mitigation for Sonoita-6204: Circuit has an 88% circuit loading with 1834 customers. The Customer Outage Minutes Ratio is 2.3888.

Mitigation for Sonoita-6206: Circuit has an 82% circuit loading with 1894 customers. The Customer Outage Minutes Ratio is 1.2793.

Mitigations for all circuits:

1. All circuits are regularly patrolled in the Santa Cruz District.
2. Immediate maintenance or repair is completed for Equipment Failure and/or External Caused damages.
3. Bird guard and bird wire are presently specified on all new designs, and trouble crews install bird guard and bird wire at locations where fuses have blown.